# Lease Review All CR

## Well Name: RAZOR 27I-3414B

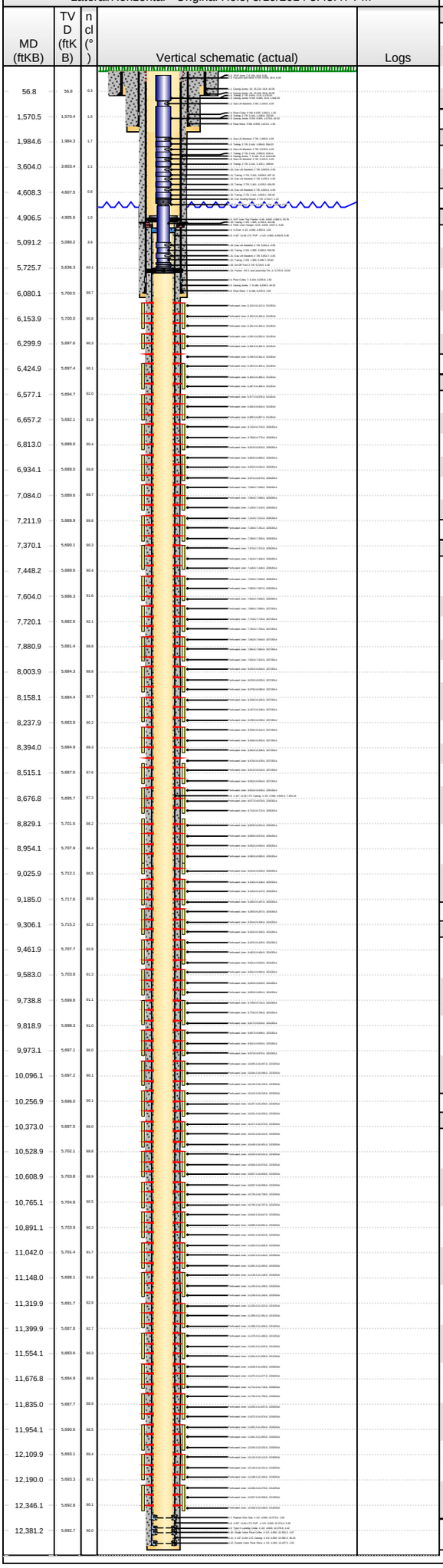
| API Number | WPC ID | Well Permit Number | Field Name | County | State |
|---|---|---|---|---|---|
| 051233790100 | 1CO076943 | | DJ Horizontal Niobrara | Weld | CO |

| Well Configuration Type | Orig KB Elv (ft) | Ground Elevation (ft) | Casing Flange Elevation (ft) | Tubing Head Elevation (ft) | Total Depth (ftKB) |
|---|---|---|---|---|---|
| Lateral/Horizontal | 4,775.80 | 4,759.00 | | | 12,440.0 |

| Original Spud Date | Completion Date | Asset Group | Responsible Engineer | N/S Dist (ft) | N/S Ref | E/W Dist (ft) | E/W Ref |
|---|---|---|---|---|---|---|---|
| 10/4/2013 | 3/1/2014 | Redtail Asset Group | Andrew Fish | 2,320.0 | FSL | 726.0 | FEL |

| Lot | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | Section | Section Suffix | Section Type | Township | Township N/S Dir | Range | Range E/W Dir | Meridian |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NE | SE | | | 27 | | | 10 | N | 58 | W | |

Lateral/Horizontal - Original Hole, 5/19/2014 3:43:47 PM




## Wellbore Sections

| Wellbore Name | Start Date | Size (in) | Act Top (ftKB) | Act Btm (ftKB) |
|---|---|---|---|---|
| Original Hole | 9/13/2013 | 20 | 16.8 | 96.8 |
| Original Hole | 10/4/2013 | 13 1/2 | 96.8 | 1,625.0 |
| Original Hole | 10/6/2013 | 8 3/4 | 1,625.0 | 6,090.0 |
| Original Hole | 10/8/2013 | 6 | 6,090.0 | 12,440.0 |

### Conductor Pipe, 96.8ftKB

| OD (in) | Wt (lb/ft) | Grade | Top (ftKB) | Btm (ftKB) | Len (ft) | Item Des |
|---|---|---|---|---|---|---|
| 16 | 75.00 | J-55 | 16.8 | 56.8 | 40.00 | Casing Joints |
| 16 | 75.00 | J-55 | 56.8 | 96.8 | 40.00 | Casing Joints |

### Surface Csg, 1,614.6ftKB

| OD (in) | Wt (lb/ft) | Grade | Top (ftKB) | Btm (ftKB) | Len (ft) | Item Des |
|---|---|---|---|---|---|---|
| 9 5/8 | 40.00 | J-55 | 16.8 | 16.8 | 0.00 | Landing joint |
| 9 5/8 | 40.00 | J-55 | 16.8 | 22.8 | 6.00 | Pup joint well head |
| 9 5/8 | 40.00 | J-55 | 22.8 | 1,569.1 | 1,546.29 | Casing Joints |
| 9 5/8 | 40.00 | J-55 | 1,569.1 | 1,570.6 | 1.50 | Float Collar |
| 9 5/8 | 40.00 | J-55 | 1,570.6 | 1,613.1 | 42.52 | Casing Joints |
| 9 5/8 | 40.00 | J-55 | 1,613.1 | 1,614.6 | 1.50 | Float Shoe |

### Intermediate Csg, 6,080.0ftKB

| OD (in) | Wt (lb/ft) | Grade | Top (ftKB) | Btm (ftKB) | Len (ft) | Item Des |
|---|---|---|---|---|---|---|
| 7 | 29.00 | HCL-80 | 16.8 | 16.8 | 0.00 | Landing Joint |
| 7 | 29.00 | HCL-80 | 16.8 | 21.8 | 5.00 | PUP Joint |
| 7 | 29.00 | HCL-80 | 21.8 | 6,036.8 | 6,014.98 | Casing Joints |
| 7 | 29.00 | HCL-80 | 6,036.8 | 6,038.3 | 1.50 | Float Collar |
| 7 | 29.00 | HCL-80 | 6,038.3 | 6,078.5 | 40.22 | Casing Joints |
| 7 | 29.00 | HCL-80 | 6,078.5 | 6,080.0 | 1.50 | Float Shoe |

### Liner, 12,430.0ftKB

| OD (in) | Wt (lb/ft) | Grade | Top (ftKB) | Btm (ftKB) | Len (ft) | Item Des |
|---|---|---|---|---|---|---|
| 4 1/2 | 11.60 | SeaH-90 | 4,906.3 | 4,906.3 | 0.00 | 4 1/2" 11.6# LTC Casing |
| 6.184 | 11.60 | SeaH-90 | 4,906.3 | 4,927.1 | 20.78 | ZXP Liner Top Packer |
| 6.184 | 11.60 | SeaH-90 | 4,927.1 | 4,933.8 | 6.64 | HMC Liner Hanger |
| 4 1/2 | 11.60 | SeaH-90 | 4,933.8 | 4,934.8 | 1.00 | X-Over |
| 4 1/2 | 11.60 | SeaH-90 | 4,934.8 | 4,940.2 | 5.46 | 4 1/2" 11.6# LTC PUP |
| 4 1/2 | 11.60 | SeaH-90 | 4,940.2 | 12,373.4 | 7,433.16 | 4 1/2" 11.6# LTC Casing |
| 4 1/2 | 11.60 | SeaH-90 | 12,373.4 | 12,374.4 | 1.00 | Rupture Disc Sub |
| 4 1/2 | 11.60 | SeaH-90 | 12,374.4 | 12,379.8 | 5.45 | 4 1/2" 11.6# LTC PUP |
| 4 1/2 | 11.60 | SeaH-90 | 12,379.8 | 12,381.3 | 1.42 | Type II Landing Collar |
| 4 1/2 | 11.60 | SeaH-90 | 12,381.3 | 12,382.3 | 1.07 | Single Valve Float Collar |
| 4 1/2 | 11.60 | SeaH-90 | 12,382.3 | 12,427.5 | 45.16 | 4 1/2" 11.6# LTC Casing |
| 4 1/2 | 11.60 | SeaH-90 | 12,427.5 | 12,430.0 | 2.52 | Double Valve Float Shoe |

## Cement Stages

| Des | Pump Start Date | Drill Out Date | Top (ftKB) | Btm (ftKB) | Top Meas Meth |
|---|---|---|---|---|---|
| Conductor Cement | 9/13/2013 | | 16.8 | 96.8 | Returns to Surface |
| Surface Casing Cement | 10/5/2013 | | 16.8 | 1,614.6 | Returns to Surface |
| Intermediate Casing Cement | 10/8/2013 | | 16.8 | 6,080.0 | Returns to Surface |
| Liner Cement | | | 4,906.3 | 12,430.0 | Returns to Surface |

## Perforations

| Type of Hole | Date | Top (ftKB) | Btm (ftKB) | Zone |
|---|---|---|---|---|
| Perforated Liner | 3/1/2014 | 6,110.0 | 6,112.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,152.0 | 6,154.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,181.0 | 6,183.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,261.0 | 6,263.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,300.0 | 6,302.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,339.0 | 6,341.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,423.0 | 6,425.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,454.0 | 6,456.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,497.0 | 6,499.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,577.0 | 6,579.0 | Niobrara, Original Hole |



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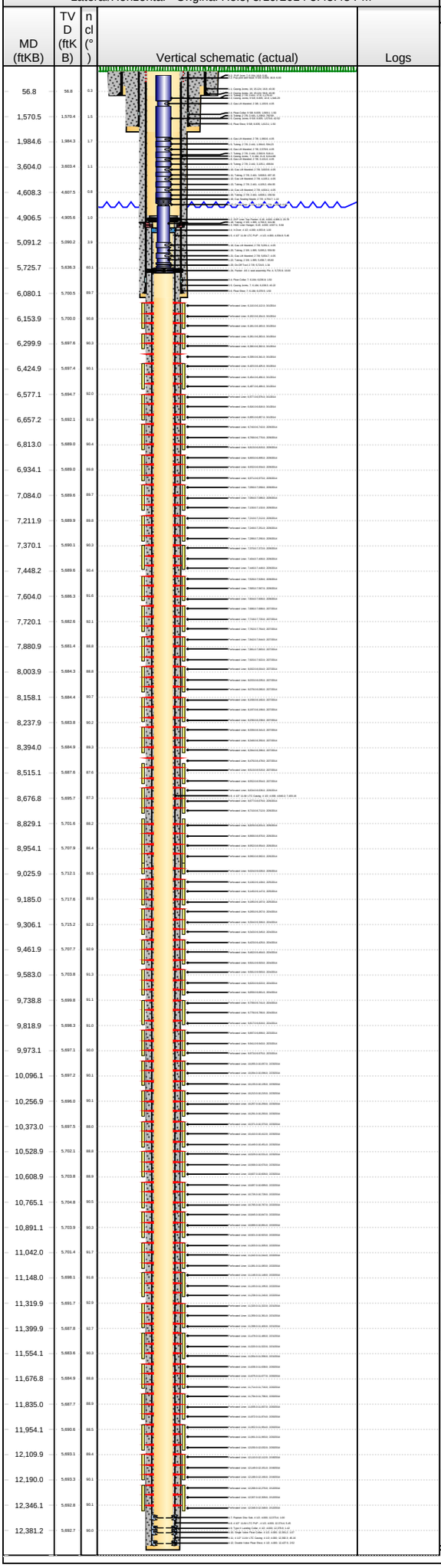
| 051233790100 | 1CO076943 | | DJ Horizontal Niobrara | Weld | CO |

| Well Configuration Type | Orig KB Elv (ft) | Ground Elevation (ft) | Casing Flange Elevation (ft) | Tubing Head Elevation (ft) | Total Depth (ftKB) |
|---|---|---|---|---|---|
| Lateral/Horizontal | 4,775.80 | 4,759.00 | | | 12,440.0 |

| Original Spud Date | Completion Date | Asset Group | Responsible Engineer | N/S Dist (ft) | N/S Ref | E/W Dist (ft) | E/W Ref |
|---|---|---|---|---|---|---|---|
| 10/4/2013 | 3/1/2014 | Redtail Asset Group | Andrew Fish | 2,320.0 | FSL | 726.0 | FEL |

| Lot | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | Section | Section Suffix | Section Type | Township | Township N/S Dir | Range | Range E/W Dir | Meridian |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NE | SE | | | 27 | | | 10 | N | 58 | W | |

Lateral/Horizontal - Original Hole, 5/19/2014 3:43:48 PM




## Perforations

| Type of Hole | Date | Top (ftKB) | Btm (ftKB) | Zone |
|---|---|---|---|---|
| Perforated Liner | 3/1/2014 | 6,616.0 | 6,618.0 | Niobrara, Original Hole |
| Perforated Liner | 3/1/2014 | 6,655.0 | 6,657.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 6,740.0 | 6,742.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 6,768.0 | 6,770.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 6,813.0 | 6,815.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 6,893.0 | 6,895.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 6,932.0 | 6,934.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 6,971.0 | 6,973.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,056.0 | 7,058.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,084.0 | 7,086.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,130.0 | 7,132.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,210.0 | 7,212.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,249.0 | 7,251.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,288.0 | 7,290.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,370.0 | 7,372.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,404.0 | 7,406.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,446.0 | 7,448.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,526.0 | 7,528.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,565.0 | 7,567.0 | Niobrara, Original Hole |
| Perforated Liner | 2/28/2014 | 7,604.0 | 7,606.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 7,686.0 | 7,688.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 7,718.0 | 7,720.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 7,762.0 | 7,764.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 7,842.0 | 7,844.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 7,881.0 | 7,883.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 7,920.0 | 7,922.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,002.0 | 8,004.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,033.0 | 8,035.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,078.0 | 8,080.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,158.0 | 8,160.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,197.0 | 8,199.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,236.0 | 8,238.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,339.0 | 8,341.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,348.0 | 8,350.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,394.0 | 8,396.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,476.0 | 8,478.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,513.0 | 8,515.0 | Niobrara, Original Hole |
| Perforated Liner | 2/27/2014 | 8,552.0 | 8,554.0 | Niobrara, Original Hole |
| Perforated Liner | 2/26/2014 | 8,634.0 | 8,636.0 | Niobrara, Original Hole |



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|---|---|---|---|---|---|---|---|
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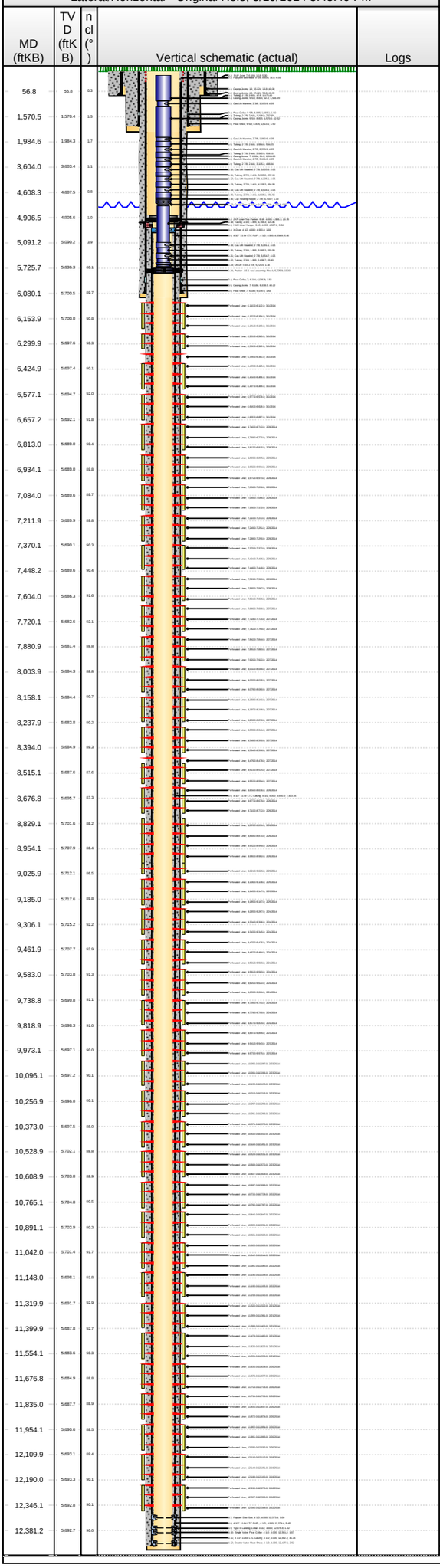
| Lot | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | Section | Section Suffix | Section Type | Township | Township N/S Dir | Range | Range E/W Dir | Meridian |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NE | SE | | | 27 | | | 10 | N | 58 | W | |

Lateral/Horizontal - Original Hole, 5/19/2014 3:43:49 PM




## Perforations

| Type of Hole | Date | Top (ftKB) | Btm (ftKB) | Zone |
|---|---|---|---|---|
| Perforated Liner | 2/26/2014 | 8,677.0 | 8,679.0 | Niobrara, Original Hole |
| Perforated Liner | 2/26/2014 | 8,710.0 | 8,712.0 | Niobrara, Original Hole |
| Perforated Liner | 2/26/2014 | 8,829.0 | 8,831.0 | Niobrara, Original Hole |
| Perforated Liner | 2/26/2014 | 8,868.0 | 8,870.0 | Niobrara, Original Hole |
| Perforated Liner | 2/26/2014 | 8,952.0 | 8,954.0 | Niobrara, Original Hole |
| Perforated Liner | 2/26/2014 | 8,980.0 | 8,982.0 | Niobrara, Original Hole |
| Perforated Liner | 2/26/2014 | 9,024.0 | 9,026.0 | Niobrara, Original Hole |
| Perforated Liner | 2/25/2014 | 9,106.0 | 9,108.0 | Niobrara, Original Hole |
| Perforated Liner | 2/25/2014 | 9,145.0 | 9,147.0 | Niobrara, Original Hole |
| Perforated Liner | 2/25/2014 | 9,185.0 | 9,187.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,265.0 | 9,267.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,304.0 | 9,306.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,343.0 | 9,345.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,423.0 | 9,425.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,462.0 | 9,464.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,501.0 | 9,503.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,581.0 | 9,583.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,620.0 | 9,622.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,659.0 | 9,661.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,739.0 | 9,741.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,778.0 | 9,780.0 | Niobrara, Original Hole |
| Perforated Liner | 2/24/2014 | 9,817.0 | 9,819.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 9,897.0 | 9,899.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 9,941.0 | 9,943.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 9,973.0 | 9,975.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,055.0 | 10,057.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,094.0 | 10,096.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,133.0 | 10,135.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,213.0 | 10,215.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,257.0 | 10,259.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,291.0 | 10,293.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,371.0 | 10,373.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,410.0 | 10,412.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,449.0 | 10,451.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,529.0 | 10,531.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,568.0 | 10,570.0 | Niobrara, Original Hole |
| Perforated Liner | 2/23/2014 | 10,607.0 | 10,609.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 10,687.0 | 10,689.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 10,726.0 | 10,728.0 | Niobrara, Original Hole |



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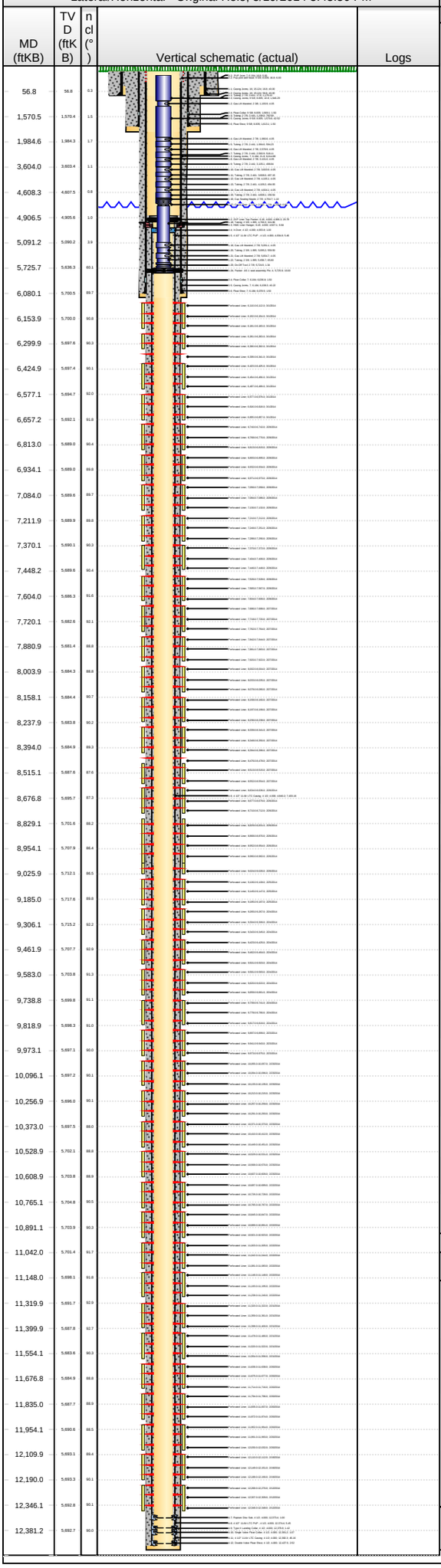
| Lot | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | Section | Section Suffix | Section Type | Township | Township N/S Dir | Range | Range E/W Dir | Meridian |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NE | SE | | | 27 | | | 10 | N | 58 | W | |

Lateral/Horizontal - Original Hole, 5/19/2014 3:43:50 PM




## Perforations

| Type of Hole | Date | Top (ftKB) | Btm (ftKB) | Zone |
|---|---|---|---|---|
| Perforated Liner | 2/22/2014 | 10,765.0 | 10,767.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 10,845.0 | 10,847.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 10,889.0 | 10,891.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 10,921.0 | 10,923.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 11,003.0 | 11,005.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 11,042.0 | 11,044.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 11,081.0 | 11,083.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 11,146.0 | 11,148.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 11,193.0 | 11,195.0 | Niobrara, Original Hole |
| Perforated Liner | 2/22/2014 | 11,238.0 | 11,240.0 | Niobrara, Original Hole |
| Perforated Liner | 2/21/2014 | 11,320.0 | 11,322.0 | Niobrara, Original Hole |
| Perforated Liner | 2/21/2014 | 11,359.0 | 11,361.0 | Niobrara, Original Hole |
| Perforated Liner | 2/21/2014 | 11,398.0 | 11,400.0 | Niobrara, Original Hole |
| Perforated Liner | 2/21/2014 | 11,478.0 | 11,480.0 | Niobrara, Original Hole |
| Perforated Liner | 2/21/2014 | 11,520.0 | 11,522.0 | Niobrara, Original Hole |
| Perforated Liner | 2/21/2014 | 11,554.0 | 11,556.0 | Niobrara, Original Hole |
| Perforated Liner | 2/20/2014 | 11,636.0 | 11,638.0 | Niobrara, Original Hole |
| Perforated Liner | 2/20/2014 | 11,675.0 | 11,677.0 | Niobrara, Original Hole |
| Perforated Liner | 2/20/2014 | 11,714.0 | 11,716.0 | Niobrara, Original Hole |
| Perforated Liner | 2/20/2014 | 11,794.0 | 11,796.0 | Niobrara, Original Hole |
| Perforated Liner | 2/20/2014 | 11,835.0 | 11,837.0 | Niobrara, Original Hole |
| Perforated Liner | 2/20/2014 | 11,872.0 | 11,874.0 | Niobrara, Original Hole |
| Perforated Liner | 2/20/2014 | 11,952.0 | 11,954.0 | Niobrara, Original Hole |
| Perforated Liner | 2/20/2014 | 11,991.0 | 11,993.0 | Niobrara, Original Hole |
| Perforated Liner | 2/20/2014 | 12,030.0 | 12,032.0 | Niobrara, Original Hole |
| Perforated Liner | 2/19/2014 | 12,110.0 | 12,112.0 | Niobrara, Original Hole |
| Perforated Liner | 2/19/2014 | 12,149.0 | 12,151.0 | Niobrara, Original Hole |
| Perforated Liner | 2/19/2014 | 12,188.0 | 12,190.0 | Niobrara, Original Hole |
| Perforated Liner | 2/12/2014 | 12,268.0 | 12,270.0 | Niobrara, Original Hole |
| Perforated Liner | 2/12/2014 | 12,307.0 | 12,309.0 | Niobrara, Original Hole |
| Perforated Liner | 2/12/2014 | 12,346.0 | 12,348.0 | Niobrara, Original Hole |

## Stim/Treat Stages

| Stage Type | Start Date | Top (ftKB) | Btm (ftKB) | Stim/Treat Fluid | Vol Clean Pump (bbl) |
|---|---|---|---|---|---|
| Frac | 2/21/2014 | 11,478.0 | 11,556.0 | 8200# 40/70, 164170# 20/40, 24bls 15%HCL, Slick Water | 3777.00 |
| Frac | 2/20/2014 | 11,636.0 | 11,716.0 | 9060# 40/70, 160100# 20/40, 24bls 15%HCL, Slick Water | 3333.00 |
| Frac | 2/20/2014 | 11,794.0 | 11,874.0 | 8860# 40/70, 170100# 20/40, 24bls 15%HCL, Slick Water | 3755.00 |
| Frac | 2/20/2014 | 11,952.0 | 12,032.0 | 7580# 40/70, 165290# 20/40, 25bls 15%HCL, Slick Water | 3631.00 |



Report Printed: 5/19/2014

# Lease Review All CR

## Well Name: RAZOR 27I-3414B

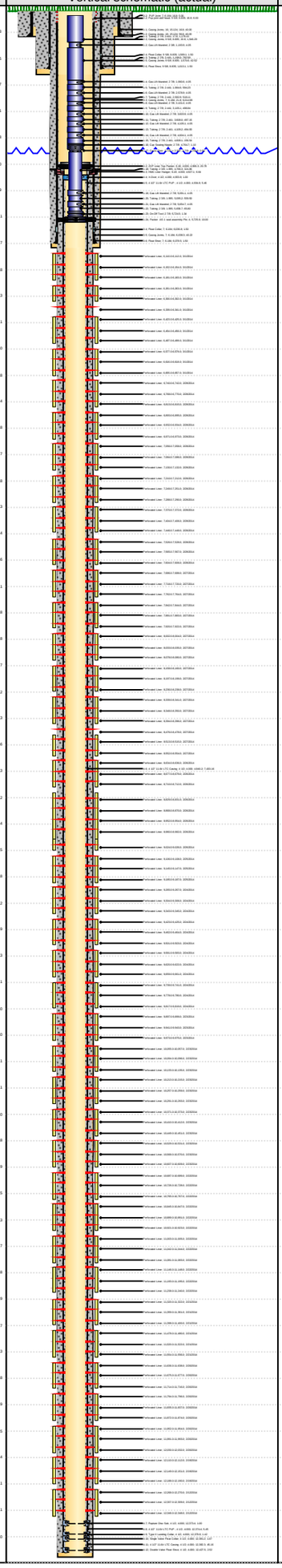
| API Number | WPC ID | Well Permit Number | Field Name | County | State |
|---|---|---|---|---|---|
| 051233790100 | 1CO076943 | | DJ Horizontal Niobrara | Weld | CO |

| Well Configuration Type | Orig KB Elv (ft) | Ground Elevation (ft) | Casing Flange Elevation (ft) | Tubing Head Elevation (ft) | Total Depth (ftKB) |
|---|---|---|---|---|---|
| Lateral/Horizontal | 4,775.80 | 4,759.00 | | | 12,440.0 |

| Original Spud Date | Completion Date | Asset Group | Responsible Engineer | N/S Dist (ft) | N/S Ref | E/W Dist (ft) | E/W Ref |
|---|---|---|---|---|---|---|---|
| 10/4/2013 | 3/1/2014 | Redtail Asset Group | Andrew Fish | 2,320.0 | FSL | 726.0 | FEL |

| Lot | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | Section | Section Suffix | Section Type | Township | Township N/S Dir | Range | Range E/W Dir | Meridian |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NE | SE | | | 27 | | | 10 | N | 58 | W | |

Lateral/Horizontal - Original Hole, 5/19/2014 3:43:52 PM




## Stim/Treat Stages

| Stage Type | Start Date | Top (ftKB) | Btm (ftKB) | Stim/Treat Fluid | Vol Clean Pump (bbl) |
|---|---|---|---|---|---|
| Frac | 2/19/2014 | 12,110.0 | 12,190.0 | 8980# 40/70, 165900# 20/40, 24bls 15%HCL, Slick Water | 3389.00 |
| Frac | 2/19/2014 | 12,268.0 | 12,348.0 | 8220# 40/70, 40590# 20/40, 24bls 15%HCL, Slick Water | 3000.00 |
| Frac | 3/1/2014 | 6,110.0 | 6,183.0 | 9353# 40/70, 168130#20/40, 24bls 15%HCL, Slick Water | 3077.00 |
| Frac | 3/1/2014 | 6,261.0 | 6,302.0 | 9271# 40/70, 168829#20/40, 24bls 15%HCL, Slick Water | 3056.00 |
| Frac | 3/1/2014 | 6,423.0 | 6,499.0 | 4728# 40/70, 167600#20/40, 24bls 15%HCL, Slick Water | 4174.00 |
| Frac | 2/28/2014 | 6,577.0 | 6,657.0 | 9025# 40/70, 156875#20/40, 24bls 15%HCL, Slick Water | 3021.00 |
| Frac | 2/28/2014 | 6,740.0 | 6,815.0 | 8982# 40/70, 163118#20/40, 24bls 15%HCL, Slick Water | 3043.00 |
| Frac | 2/28/2014 | 6,893.0 | 6,973.0 | 9266# 40/70, 162734#20/40, Slick Water | 2991.00 |
| Frac | 2/28/2014 | 7,056.0 | 7,132.0 | 8808# 40/70, 167319#20/40, 24bls 15%HCL, Slick Water | 3202.00 |
| Frac | 2/28/2014 | 7,210.0 | 7,290.0 | 8800# 40/70, 169000#20/40, Slick Water | 3078.00 |
| Frac | 2/28/2014 | 7,370.0 | 7,448.0 | 9435# 40/70, 167764#20/40, Slick Water | 3257.00 |
| Frac | 2/27/2014 | 7,526.0 | 7,606.0 | 9009# 40/70, 168891#20/40, Slick Water | 3078.00 |
| Frac | 2/27/2014 | 7,686.0 | 7,764.0 | 9319# 40/70, 163481#20/40, Slick Water | 3022.00 |
| Frac | 2/27/2014 | 7,842.0 | 7,922.0 | 9038# 40/70, 161962#20/40, Slick Water | 3053.00 |
| Frac | 2/27/2014 | 8,002.0 | 8,080.0 | 8983# 40/70, 163288#20/40, Slick Water | 3031.00 |
| Frac | 2/27/2014 | 8,158.0 | 8,238.0 | 9002# 40/70, 162281#20/40, Slick Water | 3022.00 |
| Frac | 2/27/2014 | 8,339.0 | 8,396.0 | 9115# 40/70, 169985#20/40, 24bls 15%HCL, Slick Water | 3093.00 |
| Frac | 2/26/2014 | 8,478.0 | 8,554.0 | 9034# 40/70, 171466#20/40, 24bls 15%HCL, Slick Water | 3087.00 |
| Frac | 2/26/2014 | 8,634.0 | 8,712.0 | 8637# 40/70, 146163#20/40, 24bls 15%HCL, Slick Water | 3056.00 |
| Frac | 2/26/2014 | 8,751.0 | 8,989.0 | 9176# 40/70, 163624#20/40, 24bls 15%HCL, Slick Water | 3074.00 |
| Frac | 2/26/2014 | 8,952.0 | 9,026.0 | 8718# 40/70, 161954#20/40, 24bls 15%HCL, Slick Water | 3245.00 |
| Frac | 2/25/2014 | 9,106.0 | 9,187.0 | 9144# 40/70, 168166#20/40, 24bls 15%HCL, Slick Water | 3126.00 |
| Frac | 2/24/2014 | 9,265.0 | 9,345.0 | 8926# 40/70, 111744#20/40, 24bls 15%HCL, Slick Water | 2960.00 |
| Frac | 2/24/2014 | 9,423.0 | 9,503.0 | 8914# 40/70, 167486#20/40, 24bls 15%HCL, Slick Water | 3116.00 |
| Frac | 2/24/2014 | 9,581.0 | 9,661.0 | 9213# 40/70, 167087#20/40, 24bls 15%HCL, Slick Water | 3094.00 |
| Frac | 2/24/2014 | 9,739.0 | 9,819.0 | 9420# 40/70, 166680#20/40, 24bls 15%HCL, Slick Water | 3103.00 |
| Frac | 2/23/2014 | 9,897.0 | 9,975.0 | 8900# 40/70, 165700#20/40, 24bls 15%HCL, Slick Water | 3074.00 |
| Frac | 2/23/2014 | 10,055.0 | 10,135.0 | 9500# 40/70, 166000#20/40, 24bls 15%HCL, Slick Water | 3090.00 |
| Frac | 2/23/2014 | 10,213.0 | 10,293.0 | 8958# 40/70, 165213#20/40, 24bls 15%HCL, Slick Water | 3103.00 |
| Frac | 2/23/2014 | 10,371.0 | 10,451.0 | 9379# 40/70, 166981#20/40, 24bls 15%HCL, Slick Water | 3151.00 |
| Frac | 2/22/2014 | 10,529.0 | 10,609.0 | 8800# 40/70, 164600#20/40, 24bls 15%HCL, Slick Water | 3090.00 |
| Frac | 2/22/2014 | 10,687.0 | 10,767.0 | 9270# 40/70, 165200#20/40, 24bls 15%HCL, Slick Water | 3106.00 |
| Frac | 2/22/2014 | 10,845.0 | 10,923.0 | 8700# 40/70, 166,440#20/40, 24bls 15%HCL, Slick Water | 3154.00 |
| Frac | 2/22/2014 | 11,003.0 | 11,083.0 | 8280# 40/70, 168320#20/40, 24bls 15%HCL, Slick Water | 3128.00 |
| Frac | 2/22/2014 | 11,146.0 | 11,240.0 | 7410# 40/70, 163810#20/40, 24bls 15%HCL, Slick Water | 3411.00 |
| Frac | 2/21/2014 | 11,320.0 | 11,400.0 | 9100# 40/70, 165100#20/40, 24bls 15%HCL, Slick Water | 3462.00 |

**Tubing - Production set at 5,735.9ftKB on 4/22/2014 06:00**

| Set Depth (ftKB) | Comment | Run Date | Pull Date |
|---|---|---|---|
| 5,735.9 | | 4/22/2014 | |



Report Printed: 5/19/2014

# Lease Review All CR

## Well Name: RAZOR 27I-3414B

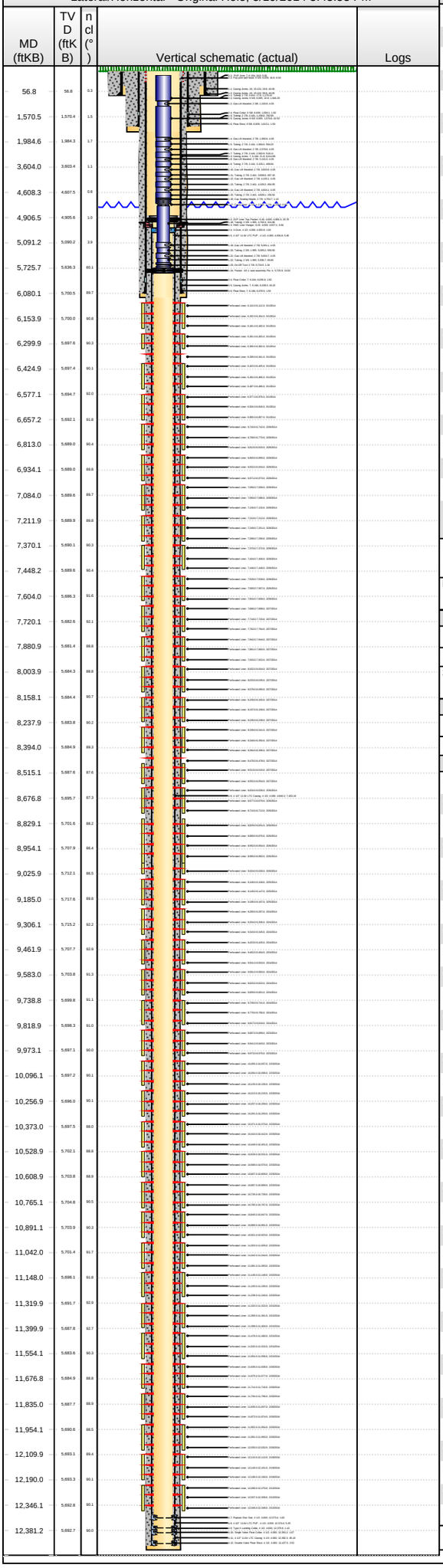
| API Number | WPC ID | Well Permit Number | Field Name | County | State |
|---|---|---|---|---|---|
| 051233790100 | 1CO076943 | | DJ Horizontal Niobrara | Weld | CO |

| Well Configuration Type | Orig KB Elv (ft) | Ground Elevation (ft) | Casing Flange Elevation (ft) | Tubing Head Elevation (ft) | Total Depth (ftKB) |
|---|---|---|---|---|---|
| Lateral/Horizontal | 4,775.80 | 4,759.00 | | | 12,440.0 |

| Original Spud Date | Completion Date | Asset Group | Responsible Engineer | N/S Dist (ft) | N/S Ref | E/W Dist (ft) | E/W Ref |
|---|---|---|---|---|---|---|---|
| 10/4/2013 | 3/1/2014 | Redtail Asset Group | Andrew Fish | 2,320.0 | FSL | 726.0 | FEL |

| Lot | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | Section | Section Suffix | Section Type | Township | Township N/S Dir | Range | Range E/W Dir | Meridian |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NE | SE | | | 27 | | | 10 | N | 58 | W | |

Lateral/Horizontal - Original Hole, 5/19/2014 3:43:53 PM




| Item Des | OD (in) | ID (in) | Len (ft) | Top (ftKB) | Btm (ftKB) |
|---|---|---|---|---|---|
| Tubing | 2 7/8 | 2.441 | 1,176.10 | 17.8 | 1,193.9 |
| Gas Lift Mandrel | 2 3/8 | | 4.05 | 1,193.9 | 1,198.0 |
| Tubing | 2 7/8 | 2.441 | 782.59 | 1,198.0 | 1,980.6 |
| Gas Lift Mandrel | 2 7/8 | | 4.05 | 1,980.6 | 1,984.6 |
| Tubing | 2 7/8 | 2.441 | 594.23 | 1,984.6 | 2,578.9 |
| Gas Lift Mandrel | 2 7/8 | | 4.05 | 2,578.9 | 2,582.9 |
| Tubing | 2 7/8 | 2.441 | 518.11 | 2,582.9 | 3,101.0 |
| Gas Lift Mandrel | 2 7/8 | | 4.05 | 3,101.0 | 3,105.1 |
| Tubing | 2 7/8 | 2.441 | 498.84 | 3,105.1 | 3,603.9 |
| Gas Lift Mandrel | 2 7/8 | | 4.05 | 3,603.9 | 3,608.0 |
| Tubing | 2 7/8 | 2.441 | 497.15 | 3,608.0 | 4,105.1 |
| Gas Lift Mandrel | 2 7/8 | | 4.05 | 4,105.1 | 4,109.2 |
| Tubing | 2 7/8 | 2.441 | 494.93 | 4,109.2 | 4,604.1 |
| Gas Lift Mandrel | 2 7/8 | | 4.05 | 4,604.1 | 4,608.1 |
| Tubing | 2 7/8 | 2.441 | 156.54 | 4,608.1 | 4,764.7 |
| Cup Seating Nipple | 2 7/8 | | 1.10 | 4,764.7 | 4,765.8 |
| Cross Over 2-7/8" x 2-3/8" | 2 7/8 | | 0.50 | 4,765.8 | 4,766.3 |
| Tubing | 2 3/8 | 1.995 | 324.86 | 4,766.3 | 5,091.1 |
| Gas Lift Mandrel | 2 7/8 | | 4.05 | 5,091.1 | 5,095.2 |
| Tubing | 2 3/8 | 1.995 | 559.50 | 5,095.2 | 5,654.7 |
| Gas Lift Mandrel | 2 7/8 | | 4.05 | 5,654.7 | 5,658.7 |
| Tubing | 2 3/8 | 1.995 | 65.80 | 5,658.7 | 5,724.5 |
| On-Off Tool | 2 7/8 | | 1.34 | 5,724.5 | 5,725.9 |
| Packer AS-1 seal assembly Pkr | 4 | | 10.00 | 5,725.9 | 5,735.9 |

### Rod Strings

**<des> on <dttmrun>**

| Rod Description | Run Date | Pull Date |
|---|---|---|
| | | |

| Item Des | OD (in) | Len (ft) | Top (ftKB) | Btm (ftKB) |
|---|---|---|---|---|
| | | | | |

### Other Strings

| Set Depth (ftKB) | Comment | Run Date | Pull Date |
|---|---|---|---|
| | | | |

| Item Des | OD (in) | Len (ft) | Top (ftKB) | Btm (ftKB) |
|---|---|---|---|---|
| | | | | |

### Other In Hole

| Des | OD (in) | Run Date | Pull Date | Top (ftKB) | Btm (ftKB) |
|---|---|---|---|---|---|
| CFP | 4 | 3/1/2014 | 4/20/2014 | 6,222.0 | 6,224.0 |
| CFP | 4 | 3/1/2014 | 4/20/2014 | 6,380.0 | 6,382.0 |
| CFP | 4 | 3/1/2014 | 4/20/2014 | 6,538.0 | 6,540.0 |
| CFP | 4 | 3/1/2014 | 4/20/2014 | 6,697.0 | 6,699.0 |
| CFP | 4 | 2/28/2014 | 4/20/2014 | 6,854.0 | 6,856.0 |
| CFP | 4 | 2/28/2014 | 4/20/2014 | 7,014.0 | 7,016.0 |
| CFP | 4 | 2/28/2014 | 4/20/2014 | 7,171.0 | 7,173.0 |
| CFP | 4 | 2/28/2014 | 4/20/2014 | 7,329.0 | 7,331.0 |
| CFP | 4 | 2/28/2014 | 4/20/2014 | 7,487.0 | 7,489.0 |
| CFP | 4 | 2/28/2014 | 4/20/2014 | 7,645.0 | 7,647.0 |
| CFP | 4 | 2/27/2014 | 4/20/2014 | 7,803.0 | 7,805.0 |
| CFP | 4 | 2/27/2014 | 4/20/2014 | 7,961.0 | 7,963.0 |
| CFP | 4 | 2/27/2014 | 4/20/2014 | 8,119.0 | 8,121.0 |
| CFP | 4 | 2/27/2014 | 4/20/2014 | 8,277.0 | 8,279.0 |
| CFP | 4 | 2/27/2014 | 4/20/2014 | 8,435.0 | 8,437.0 |
| CFP | 4 | 2/27/2014 | 4/20/2014 | 8,593.0 | 8,595.0 |
| CFP | 4 | 2/26/2014 | 4/20/2014 | 8,751.0 | 8,753.0 |
| CFP | 4 | 2/26/2014 | 4/20/2014 | 8,909.0 | 8,911.0 |
| CFP | 4 | 2/26/2014 | 4/20/2014 | 9,067.0 | 9,069.0 |
| CFP | 4 | 2/25/2014 | 4/20/2014 | 9,226.0 | 9,228.0 |
| CFP | 4 | 2/24/2014 | 4/20/2014 | 9,384.0 | 9,386.0 |
| CFP | 4 | 2/24/2014 | 4/20/2014 | 9,542.0 | 9,544.0 |
| CFP | 4 | 2/24/2014 | 4/20/2014 | 9,700.0 | 9,702.0 |
| CFP | 4 | 2/24/2014 | 4/20/2014 | 9,858.0 | 9,860.0 |
| CFP | 4 | 2/23/2014 | 4/20/2014 | 10,016.0 | 10,018.0 |
| CFP | 4 | 2/23/2014 | 4/20/2014 | 10,174.0 | 10,176.0 |
| CFP | 4 | 2/23/2014 | 4/20/2014 | 10,332.0 | 10,334.0 |
| CFP | 4 | 2/23/2014 | 4/20/2014 | 10,490.0 | 10,492.0 |
| CFP | 4 | 2/23/2014 | 4/20/2014 | 10,648.0 | 10,650.0 |
| CFP | 4 | 2/22/2014 | 4/20/2014 | 10,806.0 | 10,808.0 |
| CFP | 4 | 2/22/2014 | 4/20/2014 | 10,964.0 | 10,966.0 |
| CFP | 4 | 2/22/2014 | 4/20/2014 | 11,122.0 | 11,124.0 |
| CFP | 4 | 2/22/2014 | 4/20/2014 | 11,280.0 | 11,282.0 |
| CFP | 4 | 2/21/2014 | 4/20/2014 | 11,439.0 | 11,441.0 |
| CFP | 4 | 2/21/2014 | 4/20/2014 | 11,596.0 | 11,598.0 |



Report Printed: 5/19/2014

# Lease Review All CR

## Well Name: RAZOR 27I-3414B

| API Number | WPC ID | Well Permit Number | Field Name | County | State |
|---|---|---|---|---|---|
| 051233790100 | 1CO076943 | | DJ Horizontal Niobrara | Weld | CO |

| Well Configuration Type | Orig KB Elv (ft) | Ground Elevation (ft) | Casing Flange Elevation (ft) | Tubing Head Elevation (ft) | Total Depth (ftKB) |
|---|---|---|---|---|---|
| Lateral/Horizontal | 4,775.80 | 4,759.00 | | | 12,440.0 |

| Original Spud Date | Completion Date | Asset Group | Responsible Engineer | N/S Dist (ft) | N/S Ref | E/W Dist (ft) | E/W Ref |
|---|---|---|---|---|---|---|---|
| 10/4/2013 | 3/1/2014 | Redtail Asset Group | Andrew Fish | 2,320.0 | FSL | 726.0 | FEL |

| Lot | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | Section | Section Suffix | Section Type | Township | Township N/S Dir | Range | Range E/W Dir | Meridian |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NE | SE | | | 27 | | | 10 | N | 58 | W | |

Lateral/Horizontal - Original Hole, 5/19/2014 3:43:54 PM

| MD (ftKB) | TVD (ftKB) | ncl (°) | Vertical schematic (actual) | Logs |
|---|---|---|---|---|
| 56.8 | 56.8 | 0.3 | | |
| 1,570.5 | 1,570.4 | 1.5 | | |
| 1,984.6 | 1,984.3 | 1.7 | | |
| 3,604.0 | 3,603.4 | 1.1 | | |
| 4,608.3 | 4,607.5 | 0.8 | | |
| 4,906.5 | 4,905.6 | 1.0 | | |
| 5,091.2 | 5,090.2 | 3.9 | | |
| 5,725.7 | 5,636.3 | 60.1 | | |
| 6,080.1 | 5,700.5 | 89.7 | | |
| 6,153.9 | 5,700.0 | 90.8 | | |
| 6,299.9 | 5,697.6 | 90.3 | | |
| 6,424.9 | 5,697.4 | 90.1 | | |
| 6,577.1 | 5,694.7 | 92.0 | | |
| 6,657.2 | 5,692.1 | 91.8 | | |
| 6,813.0 | 5,689.0 | 90.4 | | |
| 6,934.1 | 5,689.0 | 89.8 | | |
| 7,084.0 | 5,689.6 | 89.7 | | |
| 7,211.9 | 5,689.9 | 89.8 | | |
| 7,370.1 | 5,690.1 | 90.3 | | |
| 7,448.2 | 5,689.6 | 90.4 | | |
| 7,604.0 | 5,686.3 | 91.6 | | |
| 7,720.1 | 5,682.6 | 92.1 | | |
| 7,880.9 | 5,681.4 | 88.8 | | |
| 8,003.9 | 5,684.3 | 88.8 | | |
| 8,158.1 | 5,684.4 | 90.7 | | |
| 8,237.9 | 5,683.8 | 90.2 | | |
| 8,394.0 | 5,684.9 | 89.3 | | |
| 8,515.1 | 5,687.6 | 87.6 | | |
| 8,676.8 | 5,695.7 | 87.3 | | |
| 8,829.1 | 5,701.6 | 88.2 | | |
| 8,954.1 | 5,707.9 | 88.4 | | |
| 9,025.9 | 5,712.1 | 86.5 | | |
| 9,185.0 | 5,717.6 | 89.8 | | |
| 9,306.1 | 5,715.2 | 92.2 | | |
| 9,461.9 | 5,707.7 | 92.0 | | |
| 9,583.0 | 5,703.8 | 91.3 | | |
| 9,738.8 | 5,699.8 | 91.1 | | |
| 9,818.9 | 5,698.3 | 91.0 | | |
| 9,973.1 | 5,697.1 | 90.0 | | |
| 10,096.1 | 5,697.2 | 90.1 | | |
| 10,256.9 | 5,696.0 | 90.1 | | |
| 10,373.0 | 5,697.5 | 88.0 | | |
| 10,528.9 | 5,702.1 | 88.8 | | |
| 10,608.9 | 5,703.8 | 88.9 | | |
| 10,765.1 | 5,704.8 | 90.5 | | |
| 10,891.1 | 5,703.9 | 90.3 | | |
| 11,042.0 | 5,701.4 | 91.7 | | |
| 11,148.0 | 5,698.1 | 91.8 | | |
| 11,319.9 | 5,691.7 | 92.9 | | |
| 11,399.9 | 5,687.8 | 92.7 | | |
| 11,554.1 | 5,683.6 | 90.3 | | |
| 11,676.8 | 5,684.9 | 88.8 | | |
| 11,835.0 | 5,687.7 | 88.9 | | |
| 11,954.1 | 5,690.6 | 88.5 | | |
| 12,109.9 | 5,693.1 | 89.4 | | |
| 12,190.0 | 5,693.3 | 90.1 | | |
| 12,346.1 | 5,692.8 | 90.1 | | |
| 12,381.2 | 5,692.7 | 90.0 | | |

## Other In Hole

| Des | OD (in) | Run Date | Pull Date | Top (ftKB) | Btm (ftKB) |
|---|---|---|---|---|---|
| CFP | 4 | 2/20/2014 | 4/20/2014 | 11,755.0 | 11,757.0 |
| CFP | 4 | 2/20/2014 | 4/20/2014 | 11,913.0 | 11,915.0 |
| CFP | 4 | 2/20/2014 | 4/20/2014 | 12,071.0 | 12,073.0 |
| CFP | 4 | 2/19/2014 | 4/20/2014 | 12,229.0 | 12,231.0 |
| CFP | 4 | 2/12/2014 | 4/20/2014 | 12,398.0 | 12,400.0 |

## Bottom Hole Cores

| Date | Core # | Top (ftKB) | Btm (ftKB) | Recov (ft) |
|---|---|---|---|---|
| | | | | |



Report Printed: 5/19/2014